

1 GTGACTGCTATCACCTTGGCGGTCTCTTGGTAAAGGAATAATTACTCTAGTGTGACT 60
 1 -----+-----+-----+-----+-----+-----+-----+
 M T A I T L G G L L L K G I I T L V S T
 61 CACACATCTTCAACGCTTCCAGCATTCAAAAGATCTTGGTAGCAAACCGCGGGCGAAATC 120
 61 -----+-----+-----+-----+-----+-----+-----+
 H T S S T L P A F K K I L V A N R G E I
 121 GCGGTCCGTGCTTCCGTGCAGCACTCGAAACCGGTGCAGCCACGGTAGCTATTACCCC 180
 121 -----+-----+-----+-----+-----+-----+-----+
 A V R A F R A A L E T G A A A T V A I Y P
 181 CGTGAAGATCGGGGATCATTCACCGCTTTGCTCTGAAGCTGTCCGCATTGGTACT 240
 181 -----+-----+-----+-----+-----+-----+-----+
 R E D R G S F H R S F A S E A V R I G T
 241 GAAGGCTCACCAAGTCAAGCGTACCTGGACATCGATGAAATTATCGGTGCAGCTAAAAAA 300
 241 -----+-----+-----+-----+-----+-----+-----+
 E G S P V K A Y L D I D E I I G A A A K K
 301 GTTAAAGCAGATGCTATTACCCGGGATATGGCTTCCTGCTCTGAAAATGCCAGCTGCC 360
 301 -----+-----+-----+-----+-----+-----+-----+
 V K A D A I Y P G Y G F L S E N A Q L A
 361 CGCGAGTGC CGGGAAACGGCATTACTTTATTGGCCCAACCCCAGAGGTTCTTGATCTC 420
 361 -----+-----+-----+-----+-----+-----+-----+
 R E C A E N G I T F I G P T P E V L D L
 421 ACCGGTGATAAGTCTCGTGC GGTAACCGCCGCGAAGAAGGCTGGTCTGCCAGTTGGCG 480
 421 -----+-----+-----+-----+-----+-----+-----+
 T G D K S R A V T A A K K A G L P V L A
 481 GAATCCACCCCGAGCAAAACATCGATGACATCGTTAAAGCGCTGAAGGCCAGACTTAC 540
 481 -----+-----+-----+-----+-----+-----+-----+
 E S T P S K N I D D I V K S A E G Q T Y
 541 CCCATCTTGTAAGGCAGTTGCCGGTGGCGGACCGGGTATGCCTTGTGTTCTCA 600
 541 -----+-----+-----+-----+-----+-----+-----+
 P I F V K A V A G G G G G R G M R F V S S
 601 CCTGATGAGCTCCGCAAATTGGCAACAGAACGATCTCGTGAAGCTGAAGCGGCATTGGC 660
 601 -----+-----+-----+-----+-----+-----+-----+
 P D E L R K L A T E A S R E A E A A F G
 661 GACGGTTCCGGTATATGTCGAACGTGCTGTGATTAACCCCGACACATTGAAGTGCAGATC 720
 661 -----+-----+-----+-----+-----+-----+-----+
 D G S V Y V E R A V I N P Q H I E V Q I

FIG. 1A

CTTGGCGATCGCACTGGAGAAGTTGTACACCTTATGAACGTGACTGCTCACTGCAGCGT
 721 -----+-----+-----+-----+-----+-----+-----+ 780
 L G D R T G E V V H L Y E R D C S L Q R

 CGTCACCAAAAAGTTGTCGAAATTGCGCCAGCACAGCATTGGATCCAGAACTGCGTGAT
 781 -----+-----+-----+-----+-----+-----+-----+ 840
 R H Q K V V E I A P A Q H L D P E L R D

 CGCATTGTCGGATGCAGTAAAGTTCTGCCGCTCCATTGGTTACCAGGGCGCGGAAACC
 841 -----+-----+-----+-----+-----+-----+-----+ 900
 R I C A D A V K F C R S I G Y Q G A G T

 GTGGAATTCTGGTCGATGAAAAGGGCAACCACGTTTCATCGAAATGAACCCACGTATC
 901 -----+-----+-----+-----+-----+-----+-----+ 960
 V E F L V D E K G N H V F I E M N P R I

 CAGGGTGGACACCGTGACTGAAGAAGTCACCGAGGTGGACCTGGTGAAGGCGCAGATG
 961 -----+-----+-----+-----+-----+-----+-----+ 1020
 Q V E H T V T E E V T E V D L L V K A Q M

 CGCTTGGCTGCTGGTGCAACCTGAAAGGAATTGGGTCTGACCCAAGATAAGATCAAGACC
 1021 -----+-----+-----+-----+-----+-----+-----+ 1080
 R L A A G A T L K E L G L T Q D K I K T

 CACGGTGCAGCACTGCAGTGCCGCATCACCACGGAAGATCCAACAAACGGCTTCCGCCA
 1081 -----+-----+-----+-----+-----+-----+-----+ 1140
 H G A A L Q C R I T T E D P N N G F R P

 GATACCGGAACTATCACCGCGTACCGCTCACCAAGGAGCTGGCGTTCTTGACGGT
 1141 -----+-----+-----+-----+-----+-----+-----+ 1200
 D T G T I T A Y R S P G G A G V R L D G

 GCAGCTCAGCTGGTGGCAGAACATCACCGCACACTTGACTCCATGCTGGTAAAATGACC
 1201 -----+-----+-----+-----+-----+-----+-----+ 1260
 A A Q L G G E I T A H F D S M L V K M T

 TGCCGTGGTTCCGACTTGAAACTGCTGTTGCTCGTGCACAGCGCGTTGGCTGAGTTC
 1261 -----+-----+-----+-----+-----+-----+-----+ 1320
 C R G S D F E T A V A R A Q R A L A E F

 ACCGTGTCTGGTGGTGCACCAACATTGGTTCTGCGTGCCTGCTGCGGGAAAGAGGAC
 1321 -----+-----+-----+-----+-----+-----+-----+ 1380
 T V S G V A T N I G F L R A L L R E E D

 TTCACTTCCAAGCGCATGCCACCGGATTATCGCGATCACCCACACCTCCTCAGGCT
 1381 -----+-----+-----+-----+-----+-----+-----+ 1440
 F T S K R I A T G F I G D H P H L L Q A

FIG. 1B

1441 CCACCTGCGGATGATGAGCAGGGACGCATCCTGGATTACTTGGCAGATGTCACCGTGAAC 1500
 P P A D D E Q G R I L D Y L A D V T V N
 1501 AAGCCTCATGGTGTGCGTCAAAGGATTTGCAGCACCAATCGATAAGCTGCCAACATC 1560
 K P H G V R P K D V A A P I D K L P N I
 1561 AAGGATCTGCCACTGCCACGCCGGTCCCGTGACCGCCTGAAGCAGCTGGCCCAGCCG 1620
 K D L P L P R G S R D R L K Q L G P A A
 1621 TTTGCTCGTATCTCCGTGAGCAGGACGCACTGGCAGTTACTGATAACCACTTCCCGAT 1680
 F A R D L R E Q D A L A V T D T T F R D
 1681 GCACACCAGTCTTGCTTGCACCCGAGTCCGCTCATTCGCACTGAAGCCTGCCAGAG 1740
 A H Q S L L A T R V R S F A L K P A A E
 1741 GCCGTCGCAAAGCTGACTCCTGAGCTTTGTCCGTGGAGGCCCTGGGGCGCGACCTAC 1800
 A V A K L T P E L L S V E A W G G A T Y
 1801 GATGTGGCGATGCGTTCCCTTTGAGGATCCGTGGACAGGCTCGACGAGCTGCCAGAG 1860
 D V A M R F L F E D P W D R L D E L R E
 1861 GCGATGCCGAATGTAAACATTCAAGATGCTGCTCGCGGCCGAAACACCGTGGATACACC 1920
 A M P N V N I Q M L L R G R N T V G Y T
 1921 CCGTACCCAGACTCCGTCTGCCGCGCTTAAAGGAAGCTGCCAGCTCCGGCGTGGAC 1980
 P Y P D S V C R A F V K E A A S S G V D
 1981 ATCTTCCGCATCTCGACCGCTTAACGACGTCTCCAGATGCGTCCAGCAATCGACGCA 2040
 I F R I F D A L N D V S Q M R P A I D A
 2041 GTCCTGGAGACCAACACCGCGGTAGCCGAGGTGGCTATGGCTTATTCTGGTATCTCT 2100
 V L E T N T A V A E V A M A Y S G D L S
 2101 GATCCAAATGAAAAGCTCTACACCCCTGGATTACTACCTAAAGATGGCAGAGGAGATCGTC 2160
 D P N E K L Y T L D Y Y L K M A E E I V
 2161 AAGTCTGGCGCTCACATTCTGGCCATTAAGGATATGGCTGGCTGCTTCGCCAGCTGCG 2220
 K S G A H I L A I K D M A G L L R P A A

FIG. 1C